

ATTACHMENT - CLAIMS LISTING

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A windmill comprising:

a number of cylindrical or tapered tower sections which are configured to support the windmill,

at least some of the tower sections being subdivided into two or more associated elongated shell segments, which associated shell segments are adapted to combine into a complete tower section,

inwardly-extending vertical flanges provided on each of the associated shell segments which vertical flanges are connected together to form an associated complete tower section, wherein the vertical flanges are welded onto the shell segments offset from the side edges of the respective shell segments such that a space is provided between opposing surfaces of adjacent vertical flanges, wherein a spacer bar is sandwiched between the adjacent vertical flanges, and wherein the adjacent vertical flanges with the spacer bar therebetween are bolted together, and

inwardly-extending upper and lower horizontal flanges provided, respectively, on said associated shell segments for interconnection of the tower sections one on top of the other to support the windmill.

2. (previously presented) A windmill according to claim 1, wherein at least one of the tower sections is divided into three associated shell segments of essentially equal arc length.

3. (previously presented) A windmill according to claim 1, wherein at least one of the shell segments comprises lengths of rolled steel plate joined together along abutting horizontal edges by welds such that the vertical flanges of the associated shell segment run along side edges of each length of the rolled steel plate and the horizontal flanges of the associated shell segment run along the free edges on uppermost and lowermost

lengths of rolled steel plates, said vertical and horizontal flanges being provided with a number of throughholes for interconnecting bolts.

4. (canceled)

5. (currently amended) A windmill according to claim-4, 1, wherein said spacer bar is provided with throughholes matching the holes in the flanges, and each throughhole in the spacer bar has a notch extending from the edge of the bar into the throughhole and wide enough to allow lateral sliding of the spacer bar over a bolt.

6. (previously presented) A windmill according to claim 5, wherein the vertical and/or horizontal joints between shell segments and tower sections, respectively, are covered by a filler material or a filler element.

7. (previously presented) A windmill according to claim 1, wherein at least one shell segment includes a ladder section and cable fixtures before being transported to the building site.

8. (previously presented) A method of building a large size, cylindrical or tapered tower for a windmill, of single-walled steel tower sections from prefabricated shell segments, comprising the steps of:

fabricating two or more shell segments from a rolled steel plate having a desired radius of curvature such that said shell segments form in unison a complete circumferential tower section, said fabricating step including providing each shell segment with vertical and horizontal flanges along free edges thereof extending inwardly relative to the radius of curvature,

mounting one or more of the shell segments on a transportation carriage or supporting frame,

transporting the one or more shell segments mounted on the transportation carriage or supporting frame to a building site,

connecting the shell segments together at the building site with connecting devices along their vertical flanges to provide one or more tower sections,
mounting tower sections on top of each other at the building site by connecting them along their opposing horizontal flanges with connecting devices, and
supporting a windmill with the tower sections.

9. (previously presented) A method according to claim 8, wherein said fabricating step includes the steps of forming a rolled steel plate in the form of a 360° shell, welding the 360° shell together to form a cylindrical or tapered tower section, and dividing the tower section into a number of elongated shell segments.

10. (previously presented) A method according to claim 8:

wherein said fabricating step includes the steps of fabricating groups of two or more different length shell segments,

wherein the connecting step includes the steps of:

connecting two or more shell segments of one group together along their abutting horizontal edges to form a first complete tower section with a first circumferential length, and

connecting two or more shell segments from two different groups together along their abutting horizontal edges to establish a second complete tower section with a second circumferential length.

11. (previously presented) A method according to claim 8, wherein said connecting step includes the step of welding the vertical and horizontal flanges of adjacent shell segments together in a position pointing towards the center of the tower.

12. (previously presented) A method according to claim 8:

wherein said providing each shell segment with vertical and horizontal flanges along free edges step includes the step of welding the vertical flanges onto the shell segments

offset from side edges of the respective shell segments such that a space is provided between opposing surfaces of adjacent vertical flanges, and

wherein said connecting step includes the step of positioning a spacer bar between at least some of the opposing surfaces of adjacent vertical flanges so that the spacer bar remains positioned between the opposing surfaces of the adjacent vertical flanges as the adjacent vertical flanges are connected together.

13. (previously presented) A method according to claim 12,

wherein a vertical joint is visible after said connecting step of the opposing surfaces of the adjacent vertical flanges with the spacer bar therebetween, and

further including the step of inserting a filler material or a filler element between the adjacent vertical flanges to cover the vertical joint.

14. (previously presented) A method according to claim 8, wherein said mounting tower section step includes the step of interconnecting horizontal flanges of adjacent tower sections after offsetting vertical division lines of the shell segments of the adjacent tower sections.

15. (previously presented) A method according to claim 8, further comprising the step of equipping at least one shell segment with a ladder section or a cable fixture before said transporting step.

16. (previously presented) A method according to claim 8, further including the step of surface treating the shell segments in a workshop before said transporting step.

17. (cancelled)